AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/591,860

Attorney Docket No.: Q96559

## **REMARKS**

Claim 1 has been amended to recite that Ry is a mono-, di-, tri- or tetra-valent organic group having 2 to 30 carbon atoms which has an amino group and/or a salt thereof and contains an aromatic ring structure. Support is found, for example, at page 15, lines 10-26 of the specification. Claims 4 and 16 have been amended to delete the article "the" in view of the amendment to claim 1. Claim 5 has been amended to depend from claim 4. Claim 17 has been amended to depend from claim 16. Claim 7 has been amended to incorporate the definition of D<sup>1</sup> from claim 6. Claims 18-19 have been cancelled in view of the amendment to claim 1. No new matter has been added, and entry of the Amendment is respectfully requested.

Upon entry of the Amendment, claims 1-17 and 20 will be pending, of which claims 10-14 are withdrawn from consideration.

The Examiner reiterated the Restriction Requirement made by telephone on July 28, 2008 and required affirmation of Applicants' election in responding to the Office Action.

In response, Applicants affirm their election of claims 1-9 and 15-20, without traverse.

Claims 7, 8, and 20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

The Examiner contends that there is insufficient antecedent basis for the limitation "...provided that a unit of -O-O- is not contained in the structural unit M2 and the formula (2-1)" in lines 13-14 of claim 7.

Claim 7 has been amended to incorporate the definition of D<sup>1</sup> from claim 6. Withdrawal of the §112 rejection is respectfully requested.

Claims 1-5 and 15-19 were rejected under 35 U.S.C.§ 102(b) as being anticipated by Morita (JP 10-237130 A) as evidenced by Brown et al (Organic Chemistry, second edition, 1998,

pp. 849-850). Claims 6 and 9 were rejected under 35 U.S.C.§ 102(b) as being anticipated by Morita.

The above two rejections should be withdrawn because Morita does not disclose or render obvious the present invention.

Amended claim 1 recites that Ry is a mono-, di-, tri- or tetra-valent organic group having 2 to 30 carbon atoms which has an amino group and/or a salt thereof and contains an aromatic ring structure.

Morita was cited as disclosing an ionic liquid type functional material ([0015]) comprising an aromatic compound which has a fluorine-containing ether chain ([0027]-[0030]) represented by the following formula (in addition to two other related compounds):

However, the fluorine-containing polyfunctional triazine compound represented by the formula (IV) (shown below) ([0009]) or the triazine compounds cited by the Examiner (one of them is shown above) do not contain an amino group. The fluorine-containing polyfunctional triazine compound (IV) is a trimer of the fluorine-containing nitrile compound (I) (shown below) and is useful as a crosslinking agent ([0009] and [0016]). There is no teaching in Morita that the fluorine-containing polyfunctional triazine compound (IV) or other triazine compounds are usable as a monomer for polymerization.

AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q96559

Application No.: 10/591,860

 $CF_{1} = CFCF_{1} O - (CF_{2} O)_{1} - (CF_{2} OF_{1} O)_{2} - (CC^{2} (CF_{2} OF_{2} O)_{3} - (CFC^{2} CF_{2} O)_{4} - (CFC^{2} CF_{3} O)_{4} -$ 

The description in [0016] of Morita et al as to a polymer electrolyte and an electrolyte for batteries is the use of a homopolymer or copolymer of the fluorine-containing nitrile compound (I). For the Examiner's reference, the disclosure of [0009] of Morita is translated into English as follows.

[0016] The fluorine-containing nitrile according to the present invention can introduce a fluorine atom and cyano group into a polymer by using a monomer for homopolymerization or copolymerization. Also, by utilizing the cyano group, a functional group can be effectively introduced into a polymer through triazine crosslinking or conversion to a carboxylic acid etc. The triazine crosslinking of the cyano group is utilized for a crosslinking of a high performance and heat-resistive fluororubber, and on the other hand, by converting the cyano group of the homopolymer or copolymer into carboxylic acid, the polymer is made as a polymer electrolyte, and can be utilized as an electrolyte for batteries, etc. In addition, ion crosslinking is possible. A crosslinked polymer (rubber) having cyano group in a side chain can be obtained by utilizing de-HF reaction of the main chain. Further a polymer where the cyano group is converted to carboxylic acid can be utilized as an ion-exchanging resin, high water-absorbable high molecule etc. Otherwise, the three-functional unsaturated compound obtained by torimerization of the cyano groups can be used as a crosslinking agent.

Application No.: 10/591,860

As to claims 6 and 9, since the compounds in Morita cited by the Examiner have a double bond at the end of each of the three substituents, polymerization of the compounds would result in a crosslinked polymer, which does not satisfy the limitation "the structural unit M1 is at least one selected from structural units derived from ethylenic monomers having, in a side chain thereof, a moiety represented by the formula (2)" as recited in present claim 6.

Accordingly, the present claims are not anticipated by Morita.

In view of the above, reconsideration and withdrawal of the §102(b) rejections based on Morita are respectfully requested.

Claims 1-3, 15 and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Armand et al (US 2004/0023092). Claims 7, 8 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Armand et al.

The above two rejections should be withdrawn because Armand et al does not disclose or render obvious the present invention.

The Examiner cited Armand et al as disclosing an ionic liquid type functional material (Abstract, [0026]-[0027]) comprising an aromatic compound which has a fluorine-containing ether chain ([0026], [0027) and is represented by the following formula:

$$CF$$
— $O$ — $C$ 
 $N$ — $N$ 
 $M$ 
 $CF$ — $CF_3$ 

However, the compounds in Armand et al do not contain a fluoroether unit D as recited in the present claims. Accordingly, the present claims are not anticipated by and are novel over Armand et al.

Attorney Docket No.: Q96559

AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/591,860

In view of the above, reconsideration and withdrawal of the §102(b) rejections based on Armand et al are respectfully requested.

Claim 1 was *provisionally* rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of co-pending Application No. 11/664,538.

Applicants respectfully traverse.

Claim 1 is not obvious over claims 1 and 2 of the co-pending '538 application.

Specifically, the limitation "Ry is a mono-, di-, tri- or tetra-valent organic group having 2 to 30 carbon atoms which has an amino group and/or a salt thereof and contains an aromatic ring structure" is not disclosed in claims 1 and 2 of the co-pending '538 application.

Accordingly, withdrawal of the double patenting rejection is respectfully requested.

Allowance of claims 1-9, 15-17 and 20 is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/591,860

Attorney Docket No.: Q96559

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Registration No. 57,426

SUGHRUE MION, PLLC

Telephone: (202) 293-7060 Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373
CUSTOMER NUMBER

Date: January 15, 2009